**AMENDMENTS TO THE CLAIMS:** 

This listing of claims will replace all prior versions, and listings, of claims in the

application. Please enter the amendment as indicated below. These amendments introduce

no new matter and support for the amendment is replete throughout the specification and

claims as originally filed. These amendments are made without prejudice and are not to be

construed as abandonment of the previously claimed subject matter, or agreement with any

objection or rejection of record.

**Listing of Claims:** 

1. (Currently Amended). A [R]reagent useful for diagnosing attention deficit

hyperactivity disorder (ADHD), comprising an isolated polynucleotide comprising a

polymorphism in linkage disequilibrium with an allele of DRDR-DRD4-7R, wherein the

polymorphism is other than an L1 or L2 polymorphismassociated with individuals exhibiting

ADHD.

2. (Currently Amended) The reagent of claim 1, wherein the polynucleotide

corresponds to comprises a polymorphism that is closely linked to a DRD4-7R alleleexhibits

greater linkage disequilibrium with DRD4-7R than DRD4-4R.

3. (Cancelled)

4. (Currently Amended) The reagent of claim [3]1, wherein the locus of the

markerpolymorphism is within 1002.7 kB of the DRD4 7R alleleexon 3 variable number

tandem repeat (VNTR).

5. (Currently Amended) The reagent of claim [3]1, wherein the locus of the

markerpolymorphism is within 50 kB350 base pairs from the center of the DRD4 7R

alleleexon 3 variable number tandem repeat (VNTR).

Page 2 of 5

Appl. No. 10/539,082 Amdt. Dated December 18, 2008

Reply to Office Action of December 8, 2008

- 6. (Currently Amended) <u>A [R]reagent</u> useful for diagnosing ADHD, comprising a pair of oligonucleotides corresponding to a locus for amplification of a polymorphism in linkage disequilibrium with an allele of DRDRDRDA-7R, wherein the polymorphism is other than an L1 or L2 polymorphismassociated with individuals exhibiting ADHD.
- 7. (Currently Amended) The reagent of claim 6, wherein the <u>polymorphism exhibits</u> greater linkage disequilibrium with DRD4-7R than DRD4-4R pair of oligonucleotides corresponds to a locus closely linked to the DRD4-7R allele.
- 8. (Cancelled)
- 9. (Currently Amended). The reagent of claim [8]6, wherein the locus of the markerpolymorphism is within 1002.7 kB of the DRD4 7R alleleexon 3 variable number tandem repeat (VNTR).
- 10. (Currently Amended) The reagent of claim [8]6, wherein the locus of the markerpolymorphism is within 50 kB350 base pairs from the center of the DRD4 7R alleleexon 3 variable number tandem repeat (VNTR).
- 11-14. (Cancelled)
- 15. (New) The reagent of claim 1, wherein the polynucleotide is an amplicon.
- 16. (New) A reagent useful for diagnosing ADHD, comprising two or more pairs of isolated oligonucleotides for amplification of two or more polymorphisms in linkage disequilibrium with DRD4-7R.
- 17. (New) The reagent of claim 16, wherein the two or more polymorphisms are selected from the group consisting of:

an A polymorphism of the A-C SNP pair in DRD4 intron 3;

Appl. No. 10/539,082 Amdt. Dated December 18, 2008 Reply to Office Action of December 8, 2008

a C polymorphism of the A-C SNP pair in DRD4 intron 3; an Ll polymorphism; and an L2 polymorphism.